HANFORD SITE TECHNOLOGY COORDINATION GROUP
MANAGEMENT COUNCIL MEETING

EESB Snoqualmie Room
Wednesday, July 17, 1996
8:30 a.m. - 12:30 p.m.

I. INTRODUCTION

Chris Bader welcomed the group and stated that many STCG members participated in the Environmental Management Science Program (EMSP) workshop held in June.

Shannon Saget stated the meeting purpose:

- to achieve consensus on the D&D Large-Scale Demonstration Proposals
- to vote on the STCG Communications Plan and whether to incorporate basic research into the STCG mission statement.

II. MEETING OUTCOMES

Shannon reviewed the meeting outcomes:

- quality proposals endorsed by the STCG
- STCG Communications Plan finalized.

The agenda was reviewed.

III. MEETING DECISIONS

- Does the Management Council endorse the Canyon Facility D&D Proposal concept for submittal to the D&D Focus Area?
- Does the Management Council endorse the Hot Cell and Glovebox D&D Proposal concept for submittal to the D&D Focus Area?
- Do we need to incorporate a new STCG mission element dealing with basic research?
- If yes, how do we want to incorporate basic research?
- Does the Management Council endorse the STCG Communications Plan?

IV. MIXED WASTE FOCUS AREA NON-THERMAL TREATMENT TECHNOLOGY EXPRESSION OF INTEREST

Pete Knollmeyer stated that at the end of June, a request for Expression of Interest was received from the Mixed Waste Focus Area, and responses were due July 8th. There was an extension given to July 17th, and an unofficial extension given to Hanford to July 19th.

Pete stated that the proposal is not completely polished at this time but a quality proposal will be achieved. The award is for $3 million in 1997 to demonstrate an off-the-shelf, rapidly deployable technology and, thus, is not really technology development. It has support from the regulators, stakeholders, and Tribal leaders.

This was stimulated by the Western Governors Association and stipulates the award must be to a site west of the Mississippi. The Governors Association made the requirement that Tribes and stakeholders participate, and we have expanded that to include regulators.

The waste must contain organics, must not already have a specified treatment path, can contain heavy metals and mercury, and would be treated by thermal methods if the normal course of action was taken. Proposals do not need details about how to treat the waste; the stakeholders and Tribes are to help select the project and the technology. The demonstration is a single award, but it must have value to other sites.

Pete received a lot of good feedback from the HAB and the Mixed Waste Subgroup. Due to the time constraints, a formal presentation to the Management Council was not possible. It is recommended that AMT and AMW involvement along with input from regulators, stakeholders, Tribes, and the Deployment Center suffice for STCG approval. Pete needs comments by July 18th. He was given "the green light" to proceed with the proposal.

V. CANYON FACILITY D&D PROPOSAL

Jim Goodenough stated that the Canyon Facility D&D Proposal would be presented in two pieces. He presented the first piece, an overview of the 200-Area Canyon Disposition Initiative, the project parameters, and conceptional alternatives. Within the initiative there is an opportunity for another large-scale demo at Hanford.

The five Hanford canyon facilities are: PUREX, B-Plant, T-Plant, U-Plant, and REDOX. Jim presented some alternatives for their final disposition, but canyon disposition remains an undecided issue.

Hanford really has not tackled the legacy of D&D waste at this point. The ER baseline doesn't address the final disposition of the Canyons until after 2018. There is a great deal of waste that will be generated from the ER Program that must be dealt with in the next few years. The Canyon facilities could serve as the repository for disposing of these wastes. In order to make the decision to leave the Canyons in place and to use them as a repository, several alternatives are being examined.

In summary, the Canyon Disposition Initiative provides:

- Potential to avoid spending $2 billion plus
- Completes a piece of the cleanup puzzle
- "Out of Box Thinking" (climate is right)
- Minimizes contaminated acreage (i.e., less new burial grounds)
- Accelerates/Compliments other key decisions for waste disposal
- Applicable to other DOE sites
- Technically feasible
- Timing is important

Bob Potter explained how the large-scale demonstration project fits into the Canyon Initiative and requested STCG Management Council endorsement to submit the U-Plant Characterization Large-Scale Demonstration Project (LSDP) proposal to METC.

The decision on the disposition of the five canyon facilities is the last major element in finalizing the Hanford Cleanup Strategy. Accurate characterization data and information are essential to make sound technical, regulatory, and financial decisions on the disposition of the canyons. The METC LSDP provides an opportunity to demonstrate advanced characterization technologies funded by EM-50.

Characterization of the canyon facilities is more expensive and hazardous than other facilities due to the complexity of the equipment systems, the harsher radiological, chemical and toxic environment, and the size of the facilities. U-Plant makes characterization even more difficult since it has 40 cells, many of which are full of miscellaneous, contaminated, discarded equipment.

RL has allocated $1.5 million to this project for FY97. The initiative would feed into the METC proposal, and we are asking METC to split the $250,000 for the LSDP demonstration plan preparation. One of the advantages is that METC would then be part of the planning, assessment, and screening process to determine what can and should be done to characterize U-Plant. The technologies will be tested in only two cells, and the successful ones will be used for balance-of-plant characterization. The demonstration is planned to be completed in 18-24 months.

Comments on this proposal are due by July 19, 1996.

Questions/Comments:

Why would we spend this much money on facility characterization, especially if we decide to dispose in place? There should be a purpose for characterization. You need to know what is there, where it is, and how much there is (e.g., TRU waste) in order to make disposal decisions. We can get a lot of information from looking at process records. We will go through a DQO process with the regulators to determine how much data we need. We are working this process out now.

Do you have a guarantee that if a company successfully demonstrates a technology or technique that they will receive a contract? Where is the future market for offsite vendors? Is this a competitive process? Have we identified any capable companies for this work? For each of the five technology areas, a list of companies that can perform the work was drawn up. This is a sample list to show that companies exist that can do the work, and is not to exclude others from bidding. Having SRS and INEL involved in the work will help the companies who perform well get future work at other sites.

It is not clear what the tie is between the characterization work and the actual cleanup. We need to ensure that we do not redo any of this work down the line. We should be involved in the DQO process and use U-Plant as the testbed or laboratory for new technologies that can then be used, if successful, at other canyon facilities. The proposed funding also allows METC to participate early in the planning process for very little money.

The proposal should set the stage and clearly identify why we are doing this work and spending this money. The proposal is to get $125K of METC support for developing a plan. Once the plan is completed, we will negotiate further funds needed.

The Management Council endorsed the Canyon Facility D&D proposal concept to be submitted to the D&D Focus Area.

VI. HOT CELL AND GLOVEBOX D&D PROPOSAL

Sue Garrett presented the Hanford Hot Cell and Glovebox Large-Scale D&D Demonstration Proposal. The proposal specifies an 18-month schedule starting in January 1997, and requests funding of $5 million. The goal is to demonstrate innovative D&D technologies for these types of facilities that can be applied across the Complex.

In the 324 Building, we are proposing six hot cells and the support facilities (e.g., pipe trenches, air locks). The problems of the 324 Building are some of the worst. It is a high-risk facility due to the large amount (>1.5 million curies) of dispersible contamination.

The 325 Building proposal is to cleanup eight gloveboxes in four rooms and the associated laboratory space. There are over 1,000 gloveboxes in the Complex where innovative D&D technologies could be applied.

Twenty demonstrations are proposed, with 12 of them in hot cells and eight in gloveboxes. We are looking for 30% cost-sharing from vendors if possible. Additional support is being investigated. A tentative commitment of $2 million has been received from the Robotics Focus Area, if the METC proposal is successful.

The demonstration is in three phases, and some technology evaluation already being done by the B-Cell folks can be applied at the beginning of the demonstration. The HAMMER Program is being examined to help train for the demonstration itself and to develop training packets for later.

The 300-Area facilities are high-priority and have TPA milestones associated with them. 324 B-Cell is considered the second-highest Site restoration effort from a risk perspective. D&D activities at these facilities are currently funded, and we can integrate these demonstrations into the ongoing activities. Once we evaluate these technologies, we have deployment capabilities in place. These facilities are representative of facilities across the Complex.

Questions/Comments:

The radiation environment is over 1,000 rem/hour. There is a foot of debris which needs to be disposed of, with lots of dispersible material. There are three large equipment racks that need dismantling.

If we were to request funding from the TFA, are we sending mixed messages? No, this is an opportunity for the TFA to use this work as a deployment platform. Any request for TFA funding will go through the Tanks Subgroup. Linda McClain requested that the ERC be on the committee to evaluate the technologies.

Does the Management Council endorse the Hot Cell and Glovebox D&D proposal concept for submittal to the D&D Focus Area? Consensus was given to proceed, following discussions with Lloyd Piper. Lloyd's believes that we can accomplish our mission and don't need a METC demonstration in the middle of the 324 Building cleanup. The Management Council requested notification on how this issue is resolved with Lloyd.

Before the next topic was started, Todd Martin mentioned that the HAB is struggling with technology development and how they want to interact with the STCG. The STCG will be asked to make a presentation at the next HAB meeting.

VII. DEPLOYMENT CENTER ACTIVITIES

Debbie Trader stated that at the last meeting, the Deployment Center flow chart was distributed showing how technologies could enter the system. The two different technology types (program and non-program) were included in the flow chart, showing the process from identification to ultimate deployment. We have gotten strong support for the Center. The Ad-Hoc Committee does not have draft protocols ready at this time. PNNL was asked to lead an effort

to draft several of the protocols, focusing first on the procurement and regulatory confirmation protocols. PNNL will create the strawman for the Ad-Hoc committee to review and approve. The Program Plan was presented to the STCG last month and a few comments were received that were editorial in nature. A new revision was distributed and the Management Council approved it.

In conjunction with the TRICIPE conference, there is A Weapons Complex Monitor Conference August 6-8 at the Shilo Inn. Debbie will be giving an overview of the Deployment Center on August 8. That afternoon, a workshop will be held to review the two protocols, with members of the private sector providing feedback. We are planning a joint STCG/Deployment Center booth at the Spectrum Conference in Seattle to communicate to a broad base of industry.

VIII. LINKING BASIC RESEARCH WITH THE STCG

John Neath presented a briefing on the Environmental Management Science Program (EMSP) and the Keystone Workshop held June 26-27. The workshop focussed on how the EMSP could help identify new solutions in the cleanup process.

Basic Science can help in the cleanup by: providing breakthroughs to enable the development of revolutionary new technologies; solving problems at any stage in the technology development process; providing support to technology development, process design, etc; and discovering problems.

The challenges for the EMSP are: selecting the right problems; getting the right mix of long-term and short-term research; getting the right kind of peer review; leveraging off of existing work; and communications.

The Congressional Mandate to EM directed DOE to develop the program to seek new and innovative cleanup methods to replace current conventional approaches, which are often costly and ineffective. They wanted to bridge the gap between fundamental research and needs-driven applied technology development.

The Keystone Workshop concluded that the STCG should broaden its focus to include science.

At the workshop, the perception was that the Program was running ahead of itself. The EM review was done in July and the needs survey was distributed but is not complete. The STCG should be the leader in determining the Site needs.

A commitment was made by Carol Henry to initiate a dialogue with stakeholders and work with them. At the meeting, it was decided that a cadre of basic and applied scientists should be established who can help meet clean-up needs through the technology maturation process. The plan is to establish a collaborative process - communication between the scientific community and the problem-holders. Clean-up decisions should be made based on scientific merits. Researchers need to better understand clean-up problems. The "just do it" focus needs to better incorporate new knowledge resulting from basic science research.

The next steps from the workshop: establish a site-specific basic science research agenda for Hanford; communicate the results of the FY96 funding decision; assume responsibility to continue the dialogue; and the STCG will coordinate efforts to provide input for the next EMSP solicitation.

The question to be voted on was: Do we need to incorporate a new STCG mission element dealing with basic research relative to Hanford cleanup problems?

Questions/Comments:

We are spinning our wheels. The message we need to send is that you have gone the wrong way.

This is a good opportunity. What are the alternatives besides using the STCG? EMSP would go directly to the programs.

We can make an impact because the EMSP did not have clear criteria and the STCG could influence the selection criteria. We need to focus on solutions and applications, as we don't want our regulators spending a lot of time on basic science. We should be aware of basic science, but focus on applied science.

This is a good opportunity. If we don't do this, the proposal selection and evaluation would be done blindly.

I have problems segregating the two needs processes. We need to consider them together. We need to embrace and add this into our mission.

Basic research is good for basic researchers, but basic research doesn't get you anywhere if you don't have a place to go. They need a place to go, so the STCG should get involved to help determine the direction of the program.

It's important to take this on. In the workshop, it was the consensus that this belongs with the STCG and we need to endorse that consensus.

This should not take a lot of the STCG's time.

Action item - draft a letter to Carol Henry from Ron Izatt that captures the flavor of this meeting and the concerns expressed by the Management Council.

Action item - draft a letter to all the Focus Areas regarding the unrealistic time frames for proposal submittals and asking them to change the way they are doing business. It was stated that the STCG submits the needs lists, and they seem to go into a black hole. We would like to know why certain technologies were chosen or not chosen for funding, the criteria used in making the decisions, and how our input was used.

This is a natural extension of our role. The powers that be do not have our Site interests at heart.

The academics wanted to do something, and they went and got the money to do something.

This organization has the opportunity to have an interactive role in making the decisions.

A letter should be drafted for Izatt's signature recommending a process for success. We do have a set of technology needs, but we might have to look at them from a little different perspective.

It was the consensus that we will incorporate a basic research element into the STCG mission statement, and the Subgroups are the mechanism to carry out the process of science needs identification.

IX. STCG COMMUNICATIONS PLAN

Dave Dillman stated that he had received input from a number of members throughout the review process. He was able to incorporate the majority of concerns/comments into the document. The Communications Plan vote was tabled until the next meeting, since the members had not seen the final version prior to the meeting.

The Subgroup Communications Plan was also reviewed. All comments need to be sent to Gary Ballew.

X. WRAP-UP

The next meeting will be held on August 13, 1996, from 8:30 a.m. to 12:30 p.m. in the ETB Columbia River Room.

Questions from Nancy Uziemblo were presented to the Management Council as follows:

- What are the Performance-Based Incentives (PBIs) relating to Innovative Technologies (using technologies off-the-shelf or new and improved) Selection, Development, and Deployment in the Project Hanford Management Contract? What PBIs are to be negotiated after the contractor has been selected?

- How is the challenge of the use of baseline technologies versus improved technologies for faster, cheaper, better, etc. fit into the 10-year plan? If PNNL is writing Hanford's 10-year plan for Hanford and Al Alm, how are they incorporating the STCG's goal for needs-driven technology development and deployment and use of new technology (over baseline technology) for site improvements and improved remediation for Hanford over the next 10 years?

Future Agenda Items

- Tanks Focus Area Presentation on Fiscal Year 1997/1998 priorities
- Presentation by program(s) on how they are meeting their technology needs
- Sitewide systems engineering
- STCG Communications Plan (vote)

List of Handouts

- STCG Meeting Package
- METC Request for Letter Proposal Large-Scale D&D Demonstration Project
- Light-Duty Utility Arm System Deployment Plans and Applications
- STCG Tank Subgroup Meeting Minutes
- D&D Subgroup Meeting Minutes
- July Mixed Waste Subgroup Highlights
- Decision Summary: U-Plant Characterization Technology Demonstration Project LSDP Proposal to METC
- Decision Summary: Hanford Hot Cell and Glovebox Large-Scale D&D Demonstration
- 200-Area Canyon Disposition Initiative Presentation
- Hanford Hot Cell and Glovebox Technology Demonstration Proposal

- Large-Scale D&D Demonstration Project Presentation
- U-Plant Fuel Reprocessing (Canyon) Facility Characterization Proposal
- Advance Program for Spectrum '96
- Draft Subgroup Communications Plan
- Weapons Complex Monitor Conference Information
- Mixed Waste Focus Area Expression of Interest
- Draft HTDC Program Plan

Action Items

- Develop a letter from the STCG to the EMSP with STCG concerns about the process and feedback on workshop needs.
- Develop a letter to the Focus Areas with STCG concerns on proposal timing/issues.
- Review Subgroup Communications Plan and send comments to Gary Ballew.
- Review Non-Thermal Treatment Proposal and send comments to Pete Knollmeyer by 7/18/96.
- Review U-Plant Proposal and send comments to Bob Potter by 7/19/96.
- Review Hot Cell/Glovebox Demonstration Proposal and send comments to Sue Garrett by 7/19/96.
- Inform the STCG Management Council members of changes to the Hot Cell/Glovebox Demonstration Proposal as soon as possible.